

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A DNA construct comprising in operable linkage:
a single promoter sequence;
a fragment of a first DNA molecule which has a length that is insufficient to independently impart a desired trait resistance to a virus to plants transformed with said fragment of the first DNA molecule, wherein the fragment of first DNA molecule is from a viral source DNA encoding a viral coat protein and is at least 110 nucleotides in length but is less than a full length cDNA encoding said trait;
a second DNA molecule effective to achieve post transcriptional gene silencing of said fragment of the first DNA molecule and, wherein the second DNA molecule is coupled to said fragment of the first DNA molecule, wherein said second DNA molecule is at least 400 nucleotides in length, wherein and said fragment of the first DNA molecule and the second DNA molecule are heterologous to each other and collectively achieve post-transcriptional silencing of a viral coat protein and impart the trait resistance to the virus to plants transformed with said DNA construct; and wherein said fragment of the first DNA molecule and the second DNA molecule are heterologous to plants; and wherein the single promoter sequence effects transcription of the first DNA molecule and the second DNA molecule; and
a single promoter sequence which effects transcription of the fragment of the first DNA molecule and the second DNA molecule; and
a single termination sequence which ends transcription of both the fragment of the first DNA molecule and the second DNA molecule.
2. (Currently Amended) The DNA construct according to claim 1, wherein said DNA construct comprises:
a plurality of different at least one additional first DNA molecules molecule operatively positioned within said DNA construct so that said single promoter sequence and said single termination sequence, respectively, effect transcription and end transcription of said plurality of different the at least one additional DNA molecules molecule.

3. (Previously Presented) The DNA construct according to claim 2, wherein at least one of the different first DNA molecules is a viral cDNA molecule and the trait is viral disease resistance.

4. (Currently Amended) The DNA construct according to claim 3 2, wherein ~~said viral cDNA molecule~~ said at least one additional DNA molecule is selected from the group consisting of a DNA molecule encoding a viral coat protein, a DNA molecule encoding a viral replicase, a viral DNA molecule not encoding a protein, a ~~DNA molecule~~ encoding a viral gene product, and combinations thereof.

5. (Currently Amended) The DNA construct according to claim 3 2, wherein ~~said viral cDNA molecule~~ at least one first DNA molecule is from a plant virus selected from the group consisting of tomato spotted wilt virus, impatiens necrotic spot virus, groundnut ringspot virus, potato virus Y, potato virus X, tobacco mosaic virus, turnip mosaic virus, tobacco etch virus, papaya ringspot virus, a ~~DNA molecule not encoding a protein~~, tomato mottle virus, and tomato yellow leaf curl virus.

6. to 8. (Canceled)

9. (Previously Presented) The DNA construct according to claim 2, wherein the second DNA molecule is selected from the group consisting of a viral cDNA molecule, a jellyfish green fluorescence protein encoding DNA molecule, and combinations thereof.

10. (Previously Presented) The DNA construct according to claim 1, wherein the first DNA molecule is a viral cDNA molecule and the trait is viral disease resistance.

11. (Previously Presented) The DNA construct according to claim 10, wherein said viral cDNA molecule is selected from the group consisting of a DNA molecule encoding a coat protein, a DNA molecule encoding a replicase, a DNA molecule not

encoding a protein, a DNA molecule encoding a viral gene product, and combinations thereof.

12. (Currently Amended) The DNA construct according to claim 10 1, wherein ~~said viral cDNA molecule~~ the first DNA molecule is from a plant virus selected from the group consisting of tomato spotted wilt virus, impatiens necrotic spot virus, groundnut ringspot virus, potato virus Y, potato virus X, tobacco mosaic virus, turnip mosaic virus, tobacco etch virus, papaya ringspot virus, tomato mottle virus, and tomato yellow leaf curl virus.

13. to 15 (Canceled)

16. (Previously Presented) The DNA construct according to claim 1, wherein the second DNA molecule is selected from the group consisting of a viral cDNA molecule, a jellyfish green fluorescence protein encoding DNA molecule, and combinations thereof.

17. (Previously Presented) The DNA construct according to claim 1, wherein the first DNA molecule and the second DNA molecule encode RNA molecules which are translatable.

18. (Previously Presented) The DNA construct according to claim 1, wherein the first DNA molecule and the second DNA molecule encode RNA molecules which are non-translatable.

19. (Currently Amended) The DNA construct according to claim 2, wherein, ~~of the plurality of different first~~ at least one additional DNA molecules, ~~at least one of the different first DNA molecules~~ molecule is long enough to impart a trait.

20. to 22. (Canceled)

23. (Original) A DNA expression vector comprising the DNA construct of claim 1.

24. (Currently Amended) ~~The A DNA expression vector according to claim 23, wherein said DNA construct comprises a plurality of different first DNA molecules operatively positioned within said DNA construct so that said single promoter sequence and said single termination sequence, respectively, effect transcription and end transcription of said plurality of different first DNA molecules comprising the DNA according to claim 2.~~

25. (Previously Presented) The DNA expression vector according to claim 24, wherein at least one of the different first DNA molecules is a viral cDNA molecule and the trait is viral disease resistance.

26. (Canceled)

27. (Original) A host cell transformed with the DNA construct of claim 1.

28. (Currently Amended) ~~The A host cell according to claim 27, wherein said DNA construct comprises a plurality of different first DNA molecules operatively positioned within said DNA construct so that said single promoter sequence and said single termination sequence, respectively, effect transcription and end transcription of said plurality of different first DNA molecules transformed with the DNA construct of claim 2.~~

29. (Currently Amended) ~~The A host cell according to claim 28, wherein said DNA construct is within an~~ transformed with the expression vector of claim 24.

30. (Canceled)

31. (Previously Presented) The host cell according to claim 28, wherein said host cell is a plant cell.

32. (Original) A transgenic plant transformed with the DNA construct according to claim 1.

33. (Currently Amended) ~~The A transgenic plant according to claim 32, wherein said DNA construct comprises a plurality of different first DNA molecules operatively positioned within said DNA construct so that said single promoter sequence and said single termination sequence, respectively, effect transcription and end transcription of said plurality of different first DNA molecules transformed with the DNA construct of claim 2.~~

34. (Previously Presented) The transgenic plant according to claim 33, wherein at least one of the different first DNA molecules is a viral cDNA molecule and the trait is viral disease resistance.

35. (Currently Amended) ~~The A transgenic plant according to claim 34, wherein said viral cDNA molecule is selected from the group consisting of a DNA molecule encoding a coat protein, a DNA molecule encoding a replicase, a viral DNA molecule not encoding a protein a DNA molecule encoding a viral gene product, and combinations thereof transformed with the DNA construct of claim 4.~~

36. (Currently Amended) ~~The A transgenic plant according to claim 34, wherein said plant viral cDNA molecule is from a virus selected from the group consisting of tomato spotted wilt virus, impatiens necrotic spot virus, groundnut ringspot virus, potato virus Y, potato virus X, tobacco mosaic virus, turnip mosaic virus, tobacco etch virus, papaya ringspot virus, tomato mottle virus, and tomato yellow leaf curl virus transformed with the DNA construct of claim 5.~~

37. to 39. (Canceled)

40. (Currently Amended) The transgenic plant according to claim 33, wherein the second DNA molecule is selected from the group consisting of a viral cDNA molecule, a jellyfish green fluorescence protein encoding DNA molecule, a viral gene silencer, and combinations thereof.

41. (Previously Presented) The transgenic plant according to claim 33, wherein the first DNA molecule and the second DNA molecule encode RNA molecules which are translatable.

42. (Previously Presented) The transgenic plant according to claim 33, wherein the first DNA molecule and the second DNA molecule encode RNA molecules which are non-translatable.

43. (Previously Presented) The transgenic plant according to claim 33, wherein the plant is selected from the group consisting of alfalfa, rice, wheat, barley, rye, cotton, sunflower, peanut, corn, potato, sweet potato, bean, pea, chicory, lettuce, endive, cabbage, brussel sprout, beet, parsnip, turnip, cauliflower, broccoli, radish, spinach, onion, garlic, eggplant, pepper, celery, carrot, squash, pumpkin, zucchini, cucumber, apple, pear, melon, citrus, strawberry, grape, raspberry, pineapple, soybean, tobacco, tomato, sorghum, papaya, sugarcane, *Arabidopsis thaliana*, *Saintpaulia*, petunia, pelargonium, poinsettia, chrysanthemum, carnation, and zinnia.

44. to 45. (Canceled)

46. (Currently Amended) A method of ~~imparting a trait increasing viral resistance~~ to a plant comprising:

transforming a plant with a DNA construct according to claim 1 under conditions effective to ~~impart a trait increase viral resistance~~ to the plant.

47. (Currently Amended) The method according to claim 46, wherein said DNA construct comprises ~~a plurality of different at least one additional~~ first DNA ~~molecule~~ molecule operatively positioned within said DNA construct so that said single promoter sequence and said single termination sequence, respectively, effect transcription and end transcription of said ~~plurality of different~~ first ~~and at least one additional~~ DNA molecules.

48. (Previously Presented) The method according to claim 47, wherein at least one of the different first DNA molecules is a plant viral cDNA molecule and the trait is viral disease resistance.

49. (Currently Amended) The method according to claim 48 47, wherein ~~said viral cDNA molecule~~ said at least one additional DNA molecule is selected from the group consisting of a DNA molecule encoding a viral coat protein, a DNA molecule encoding a viral replicase, a DNA molecule not encoding a protein, a ~~DN~~A molecule encoding a viral gene product, and combinations thereof.

50. (Currently Amended) The method according to claim 48 47, wherein ~~said plant viral DNA molecule~~ said at least one additional DNA molecule is from a plant virus selected from the group consisting of tomato spotted wilt virus, impatiens necrotic spot virus, groundnut ringspot virus, potato virus Y, potato virus X, tobacco mosaic virus, turnip mosaic virus, tobacco etch virus, tomato mottle virus, and tomato yellow leaf curl virus.

51. to 52. (Canceled)

53. (Previously Presented) The method according to claim 47, wherein the second DNA molecule is selected from the group consisting of a viral cDNA molecule, a jellyfish green fluorescence protein encoding DNA molecule, and combinations thereof.

54. (Previously Presented) The method according to claim 47, wherein the first DNA molecule and the second DNA molecule encode RNA molecules which are translatable.

55. (Previously Presented) The method according to claim 47, wherein the first DNA molecule and the second DNA molecule encode RNA molecules which are non-translatable.

56. (Previously Presented) The method according to claim 47, wherein the plant is selected from the group consisting of alfalfa, rice, wheat, barley, rye, cotton, sunflower, peanut, corn, potato, sweet potato, bean, pea, chicory, lettuce, endive, cabbage, brussel sprout, beet, parsnip, turnip, cauliflower, broccoli, radish, spinach, onion, garlic, eggplant, pepper, celery, carrot, squash, pumpkin, zucchini, cucumber, apple, pear, melon, citrus, strawberry, grape, raspberry, pineapple, soybean, tobacco, tomato, sorghum, papaya,

sugarcane, *Arabidopsis thaliana*, *Saintpaulia*, petunia, pelargonium, poinsettia, chrysanthemum, carnation, and zinnia.

57. (Currently Amended) The method according to claim 47 further comprising:

propagating progeny of the plants transformed with said DNA construct and selecting progeny that comprise the construct.

58. (Currently Amended) A transgenic plant seed transformed with comprising the DNA construct according to claim 1.

59. (Currently Amended) The A transgenic plant seed according to claim 58, wherein said DNA construct comprises a plurality of different first DNA molecules operatively positioned within said DNA construct so that said single promoter sequence and said single termination sequence, respectively, effect transcription and end transcription of said plurality of different first DNA molecules comprising the DNA construct of claim 2.

60. (Previously Presented) The transgenic plant seed according to claim 59, wherein at least one of the different first DNA molecules is a viral cDNA molecule and the trait is viral disease resistance.

61. (Currently Amended) The A transgenic plant seed according to claim 60, wherein said viral cDNA molecule is selected from the group consisting of a DNA molecule encoding a coat protein, a DNA molecule encoding a replicase, a DNA molecule that does not encode a protein, a DNA molecule encoding a viral gene product, and combinations thereof comprising the DNA construct of claim 4.

62. (Currently Amended) The A transgenic plant seed according to claim 60, wherein said viral cDNA molecule is from a virus selected from the group consisting of tomato spotted wilt virus, impatiens necrotic spot virus, groundnut ringspot virus, potato virus Y, potato virus X, tobacco mosaic virus, turnip mosaic virus, tobacco etch virus, tomato mottle virus, and tomato yellow leaf curl virus comprising the DNA construct of claim 5.

63. to 65. (Canceled)

66. (Previously Presented) The transgenic plant seed according to claim 59, wherein the second DNA molecule is selected from the group consisting of a viral cDNA molecule, a jellyfish green fluorescence protein encoding DNA molecule, and combinations thereof.

67. (Previously Presented) The transgenic plant seed according to claim 60, wherein the viral cDNA molecule and the second DNA molecule encode RNA molecules which are translatable.

68. (Previously Presented) The transgenic plant seed according to claim 60, wherein the viral cDNA molecule and the second DNA molecule encode RNA molecules which are non-translatable.

69. (Previously Presented) The transgenic plant seed according to claim 59, wherein the plant seed is from a plant selected from the group consisting of alfalfa, rice, wheat, barley, rye, cotton, sunflower, peanut, corn, potato, sweet potato, bean, pea, chicory, lettuce, endive, cabbage, brussel sprout, beet, parsnip, turnip, cauliflower, broccoli, radish, spinach, onion, garlic, eggplant, pepper, celery, carrot, squash, pumpkin, zucchini, cucumber, apple, pear, melon, citrus, strawberry, grape, raspberry, pineapple, soybean, tobacco, tomato, sorghum, papaya, sugarcane, *Arabidopsis thaliana*, *Saintpaulia*, petunia, pelargonium, poinsettia, chrysanthemum, carnation, and zinnia.

70. (Currently Amended) A method of imparting a trait increasing resistance to viral disease in to a plants plant comprising:

planting a transgenic plant seed according to claim 58 and
propagating a plant from the planted transgenic plant seed under conditions effective to impart a trait to the plant resulting in a plant with increased resistance to viral disease compared to an untransformed plant.

71. (Currently Amended) The method according to claim 70, wherein said DNA construct comprises ~~a plurality of different~~ first at least one additional DNA molecules molecule operatively positioned within said DNA construct so that said single promoter sequence and said single termination sequence, respectively, effect transcription and end transcription of said ~~plurality of different~~ first at least one additional DNA molecules.

72. (Previously Presented) The method according to claim 71, wherein at least one of the different first DNA molecules is a viral cDNA molecule and the trait is viral disease resistance.

73. (Currently Amended) The method according to claim ~~72~~ 71, wherein ~~said viral eDNA molecule~~ said at least one additional DNA molecule is selected from the group consisting of a DNA molecule encoding a viral coat protein, a DNA molecule encoding a viral replicase, a DNA molecule which does not encode a protein, ~~a DNA molecule encoding a viral gene product~~, and combinations thereof.

74. (Currently Amended) The method according to claim ~~72~~ 71, wherein ~~said viral eDNA molecule~~ said at least one additional DNA molecule is from a plant virus selected from the group consisting of tomato spotted wilt virus, impatiens necrotic spot virus, groundnut ringspot virus, potato virus Y, potato virus X, tobacco mosaic virus, turnip mosaic virus, tobacco etch virus, tomato mottle virus, and tomato yellow leaf curl virus.

75. to 76. (Canceled)

77. (Previously Presented) The method according to claim 71, wherein the second DNA molecule is selected from the group consisting of a viral cDNA molecule, a jellyfish green fluorescence protein encoding DNA molecule, and combinations thereof.

78. (Previously Presented) The method according to claim 71, wherein the first DNA molecule and the second DNA molecule encode RNA molecules which are translatable.

79. (Previously Presented) The method according to claim 71, wherein the first DNA molecule and the second DNA molecule encode RNA molecules which are non-translatable.

80. (Previously Presented) The method according to claim 71, wherein the plant seed is from a plant selected from the group consisting of alfalfa, rice, wheat, barley, rye, cotton, sunflower, peanut, corn, potato, sweet potato, bean, pea, chicory, lettuce, endive, cabbage, brussel sprout, beet, parsnip, turnip, cauliflower, broccoli, radish, spinach, onion, garlic, eggplant, pepper, celery, carrot, squash, pumpkin, zucchini, cucumber, apple, pear, melon, citrus, strawberry, grape, raspberry, pineapple, soybean, tobacco, tomato, sorghum, papaya, sugarcane, *Arabidopsis thaliana*, *Saintpaulia*, petunia, pelargonium, poinsettia, chrysanthemum, carnation, and zinnia.

81. (Currently Amended) The method according to claim 71 further comprising:

propagating progeny of the plants transformed with said DNA construct and selecting progeny that comprise the construct.

82. to 94. (Canceled)

95. (Previously Presented) A DNA construct comprising:

a fusion gene comprising:

a plurality of fragments of DNA molecules at least some of which are viral and have a length that is independently insufficient to impart a trait to plants transformed with that fragment of a DNA molecule, wherein at least some of the fragments of DNA molecules are at least 110 nucleotides in length but are less than a full-length cDNA, said plurality of fragments of DNA molecules collectively are at least 510 nucleotides in length and impart a trait to plants transformed with said DNA construct and to effect silencing of the DNA construct;

a single promoter sequence which effects transcription of the plurality of fragments of DNA molecules; and

a single termination sequence which ends transcription of the plurality of fragments of DNA molecules.

96. (Previously Presented) A DNA construct according to claim 95, wherein the trait is viral disease resistance.

97. (Previously Presented) A DNA expression vector comprising the DNA construct of claim 95.

98. (Previously Presented) A host cell transformed with the DNA construct of claim 95.

99. (Previously Presented) A transgenic plant transformed with the DNA construct of claim 95.

100. (Currently Amended) ~~The A~~ transgenic plant according to claim 99, wherein ~~at least one of the traits is viral disease resistance, at least one of said the DNA molecules being~~ are selected from the group consisting of a DNA molecule encoding a viral coat protein, a DNA molecule encoding a viral replicase, a ~~DNA molecule not encoding a protein, a DNA molecule coding a viral gene product~~ and combinations thereof.

101. (Currently Amended) A method of imparting a trait increasing viral resistance to plants comprising:

transforming a the plant with a DNA construct according to claim 95.

102. (Currently Amended) A transgenic plant seed ~~transformed with~~ comprising the DNA construct of claim 95.

103. (Currently Amended) A method of imparting a trait increasing viral resistance to plants comprising:

planting a transgenic plant seed according to claim 102 and propagating a plant from the ~~planted~~ transgenic plant seed.

104. (new) A DNA construct comprising in operable linkage:

a single promoter sequence which effects transcription of a plurality of DNA molecules;

a plurality of DNA molecules each of which is at least 110 nucleotides in length, wherein at least one of which is of a length insufficient to impart resistance to a virus to plants transformed therewith, wherein at least one of the plurality of DNA molecules is from a DNA encoding viral coat protein, wherein the plurality of DNA molecules collectively are at least 510 nucleotides in length, wherein the plurality of DNA molecules are heterologous to each other, and wherein the at least one of the plurality of DNA molecules effect post-transcriptional silencing of viral coat proteins and impart resistance to at least one virus in plants transformed with said DNA construct; and

a single termination sequence which ends transcription of the plurality of DNA molecules.

105. (new) A DNA construct comprising in operable linkage:

a single promoter sequence;

at least two first DNA molecules, at least one of which is at least 110 nucleotides in length and has a length that is insufficient to independently impart resistance to a virus to plants transformed with said first DNA molecule, wherein at least one of the first DNA molecules is from a virus coat protein gene and are heterologous to each other; and

a second DNA molecule, wherein the second DNA molecule is coupled to the first DNA molecules, wherein the second DNA molecule is at least 400 nucleotides in length, wherein the first DNA molecules and the second DNA molecule are heterologous to each other and collectively achieve post-transcriptional silencing of a virus coat protein and impart resistance to the virus to plants transformed with said DNA construct; and wherein the single promoter sequence effects transcription of the first DNA molecules and the second DNA molecules; and

a single termination sequence which ends transcription of the first DNA molecules and the second DNA molecule.